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ORGANIZATIONAL EXCELLENCE: THREE KEYS TO THE CENTRALIZATION/DECENTRALIZATION DEBATE

by

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Biography

Lieutenant Colonel Glen E. Christensen is a Security Forces officer assigned to the Air War College, Maxwell AFB, AL. He was commissioned as a Distinguished Military Graduate in 1993 at the United States Air Force Academy, CO. Colonel Christensen is also a graduate of the US Army's Command and General Staff College and School of Advanced Military Studies. He has commanded at the squadron level three times and has deployed in support of Operation IRAQI FREEDOM three times, twice as a squadron commander and once as the operations and plans officer for Operation DESERT SAFESIDE, the first offensive ground combat operation in Air Force history.

Colonel Christensen is a graduate of both the US Army's Airborne and Air Assault Schools. His major decorations include three Bronze Star Medals (one with valor), five Meritorious Service Medals, the Joint Service Commendation Medal, two Air Force Commendation Medals, three Air Force Achievement Medals and the Combat Action Medal.

In addition to Maxwell, Colonel Christensen has been assigned at the Air Force Academy, CO; Vance AFB, OK; F.E. Warren AFB, WY; Osan Air Base, Republic of Korea; Andrews AFB, MD; Lackland AFB, TX; Moody AFB, GA; Fort Leavenworth, KS; Schriever AFB, CO and Incirlik AB, Republic of Turkey.

Abstract

From its inception as a separate service, the Air Force struggled with achieving the optimal organizational construct. All told, since 1947, there have been seven periods of major organizational change. This doesn't account for the relatively minor modifications that occurred within these periods. In almost every case, a key element of consideration was the level with which to either centralize or decentralize manpower and/or resources. Subsequently, to assist with the research already in existence, this paper provides three key principles to consider when attempting to avoid missteps with regards to the centralization versus decentralization argument.

The Air Force's history is replete with organizational attempts offering a tremendous collection of lessons learned. These lessons learned provide but one aspect from which to study the key elements to the centralization/decentralization question. Civilian efforts also contribute significantly to available research data and subsequently provide additional critical information for consideration. Additionally, recent and on-going initiatives serve to bring previous lessons learned and associated civilian research into a more current context.

In the end, there are three key principles to avoiding centralization/decentralization pitfalls: The mission is pre-eminent, decentralize to the lowest level possible without sacrificing unity of effort and unity of command, and seek the proper balance between efficiency and effectiveness. By focusing on these principles, those seeking to best steward available manpower and resources are much more likely to do so.

Introduction

There are those who serve in or with the United States Air Force who argue that the youngest services' only culture is one of change. There are certainly examples to support this assertion. As one example, the Air Force is on its third primary or "service dress" uniform since the days of the Cold War. Others would argue the Air Force does not embrace history as much as the other branches of service. The best example of this viewpoint is the fact that when tasked to activate its newest Major Command, Air Force Global Strike Command, the Air Force turned to a completely new design to serve as the command crest. This is despite the fact that Global Strike Command, when activated, was awarded the lineage and honors of its forbearer, the infamous Strategic Air Command.[1] Organizationally, the Air Force has also experienced a tradition of change. From the earliest days in 1947, the Air Force has undertaken approximately seven periods of significant organizational change. In these days of dwindling resources and evolving technology, change, once again, appears to be on the horizon. Unfortunately, unlike the first two examples of a tendency to embrace change, which are predominantly focused on the aesthetic, Air Force attempts at organizational change strike at the very heart of the Service's existence: the mission. Moreover, many of the organizations and reorganizations have been drawn out evolutions of proposed organizational structures, as was the example with the dual and then tri-deputy organizational constructs. Other reorganizations, as exemplified by the dis-establishment and subsequent re-establishment of centralized maintenance functions in the early 1990s and early 2000s, haven been undertaken to simply reverse a concept that in the end did not meet mission needs.

Drawing from lessons learned throughout the Air Force's history in an effort to achieve a highly effective level of centralization/decentralization while at the same time ensuring the most

efficient use of resources, this treatise submits three fundamental principles to achieve the optimal force structure: The mission is pre-eminent; decentralize to the lowest level possible without sacrificing unity of effort and unity of command; seek the proper balance between efficiency and effectiveness. Admittedly, application of these principles will not provide the final or even perfect answer. Factors such as the evolution of technology, changes in mission needs, etc. will necessitate on-going evaluation. That said, however, consideration of these three principles will not only help avoid sins of the past, but also future potential pitfalls thereby providing for more effective stewardship of critical manpower and resources.

Having established the fundamental argument, the remainder of this paper is broken into three sections, focusing on each principle from three points of view. The first, or historical, point of view highlights lessons learned throughout the various major periods of Air Force reorganizations. The second point of analysis draws out lessons learned and research conducted in the corporate world. While it may seem incongruous to compare civilian organizational concepts with those utilized in the military, the fact remains that quite a bit of work has been conducted in this area outside of the military. Moreover, General Wilber "Bill" Creech, the second-longest serving major command commander in US Air Force history not only contributed a body of work to the civilian research, but also bridged the two communities by personally applying the concepts while the commander of Tactical Air Command. The third and final point of view provides analysis of current centralization/decentralization initiatives. These current examples meld the aforementioned historical lessons-learned with civilian efforts on the subject to provide more efficient and timely navigation through the maze of centralization/decentralization initiatives.

In the end, the facts are simple. The United States is facing one of the worst economic recessions in history. Additionally, 10 years of war have taken a toll on both the Airmen and our materiel. For these reasons, the Air Force faces a tough road ahead in what will certainly amount to austere times. It is for this reason the room for error with regards to organizational change is minimal and why consideration of the three principles outlined in the aforementioned thesis merit serious consideration. If the pages that follow contribute, if even in a small way, to help navigate through troubled organizational waters, it will have been well worth the effort!

The Mission is Pre-Eminent

As outlined above, the first of the three key principles to achieving the optimal level of centralization/decentralization centers on ensuring a unit's assigned mission is pre-eminent in determining its organizational structure. This may sound intuitive, but as the next few paragraphs outline, this has not always been the case.

From a military perspective, Air Force Publication Document (AFPD) 38-1 stresses the importance of this principle by listing "Mission Orientation" as the first on its list of characteristics desired in Air Force organizations.[2] AFPD 38-1 further defines mission orientation as "Organizations should have a reason to exist and should be designed to achieve the outcome defined in the applicable mission directive."[3] From a historical perspective, perhaps one of the most significant studies on Air Force organizational structures was published by the Air University's Leadership and Management Development Center (LDMC) in 1984. Initially tasked by the Headquarters Air Force Director of Manpower and Organization in 1981, Drs. Edward Conlon and Richard Draft along with then Maj Lawrence Short and Capt Jeffrey Austin authored "A Field Study of Air Force Organization Structures." The point of the study was to outline "the importance of structure" and to identify "theoretical models for structural variations

and alternatives."[4] In the summary portion of their study, the authors address the importance of mission to organizational structure, "It is important, however, not to fit structures across missions, but to fit the structure to the mission."[5]

Failing to fit the structure to the mission can, and has, caused problems for the Air Force in the past, especially with regards to the appropriate level of centralization/decentralization. In an article published in the Summer 2008 edition of the "Exceptional Release" magazine, Major General Robert H. McMahon, then the Air Force's Director of Maintenance, provided insight into why the Air Force senior leadership reversed the objective wing concept of maintenance decentralization. Specifically, he states "In the Objective Wing structure, we assigned the Logistics Group the responsibility for fleet health, but assigned most of the resources and authority to accomplish it to the Operations Group commander. This created a cross-functional accountability resulting in friction and ambiguity at the tactical level."[6] Considering the assigned mission of the Logistics Group under the objective wing concept, "The logistics group supports the primary mission with materiel and resources. This includes supply, transportation, contracting and intermediate level maintenance"[7] and that of the Operations Group "The operations group operates and maintains primary mission equipment"[8] it becomes clear that mission considerations were not a pre-eminent factor of the objective wing organizational structure. More to the point, the mission of operating the aircraft was wholly embedded in the operations group, but the mission of maintaining the aircraft was split across two groups. As a result, the Air Force reversed the objective wing concept less than 10 years after its implementation. Conversely, had the concept of unit mission been properly and accurately considered, the decentralized maintenance "experiment" could have been avoided.

From a civilian perspective, the importance of an organization's mission on its structure is not immediately intuitive. In none of the multiple texts on organizational theory is the word "mission" mentioned significantly, if at all. To the casual reader, this may seem to be problematic with regards to identifying the importance to mission on organizational structure. To the contrary, the absence of the word merely serves to outline that the purpose an organization exists, its "mission," is a given. Put another way, the mission is the starting point from which organizational structures are designed. Without a given mission, the organization's purpose for existence ceases to exist. As an example, on the very first page of his book Structures of Fives: Designing Effective Organizations, Dr. Henry Mintzberg provides a vignette in which an entrepreneur decides to start making pottery in her basement. He discusses the challenges she faces as her business expands requiring an expansion in personnel and materiel which eventually drove the protagonist to consider organizational structure.[9] The point is, the mission of the protagonist's organization, in this case to make pottery, was the foundation from which the need to discuss organizational theory arose. In fact, Dr. Mintzberg spends the next 297 pages doing exactly that. Similarly, in the introduction of their book, Classics of Organization Theory, Jay Shafritz and J. Steven Ott define organization as "a social unit with some particular purposes."[10] Simply stated, the mission of an organization provides its purpose for existence.

Earlier in this paper, I mentioned General Wilbur "Bill" Creech contributed a body of work to the collection of civilian literature dedicated to achieving the most effective business practices. General Creech's book, The Five Pillars of TQM: How to Make Total Quality Management Work for You, contributes quite a bit to the second and third principles outlined in this thesis. For this part of the conversation, however, General Creech's role as a major

proponent for decentralization and, more importantly, his position as Commander-in-Chief (CinC) of Tactical Air Command (TAC), not only helps to bridge the gap between military and civilian literature on the importance of mission to organizational structure, but relates directly to the logistics group/operations group example highlighted earlier.

As CinC TAC, General Creech aggressively pursued the concept of decentralization. From a maintenance perspective, General Creech describes, "Our new architecture broke up those functional fiefdoms and broke down those functional walls. All flightline maintenance was organization by teams. The specialists were moved from their functional silos into those teams and integrated fully with other maintenance technicians."[11] One would be hard pressed to find a bigger decentralization advocate in the Air Force. In fact, many of those involved in the decision to move certain maintenance functions to the operations group were Creech disciples. The problem is, however, they failed to recognize that even General Creech saw limits to decentralization. The first example is his understanding that integrated squadron teams "wouldn't work in all cases."[12] The second example is the fact that no literature exists from his time as CinC TAC suggesting General Creech intended to take the decentralization any farther than he did. To the contrary, he refers to TAC's decentralization efforts as the "before-and-after of maintaining TAC's complex fighter aircraft"[13] implying the final product obtained during the major command's reorganization achieved the desired outcome. Unfortunately, with General Creech's passing, we cannot definitively say he considered the importance of mission with regards to organizational structure. What we can say, as indicated above, is that his "teaming" efforts focused completely on the mission, while reorganization of maintenance functions into the operations group in the early 1990s did not. The most compelling part of the preceding

sentence is the fact that General Creech's decentralization efforts remain a part of the Air Force today, while the logistics group/operations group construct of the objective wing do not.

The only discussion that remains with regards to the importance of mission to determine the proper level of centralization/decentralization is applying the concept to current reorganization efforts. Perhaps the best example of this is the current push to centralize communications functions above the wing level. Conversations with multiple personnel serving in current communications organizations at the wing level highlight their frustration with current initiatives. In the words of one communications squadron commander, "As the base communications commander, I'm responsible for providing the wing commander with what he/she needs to accomplish the mission, but so many of the services are 100% out of my hands. All I can do is advocate to our detachment at base-x. I don't have the ability or access to fix the problem. In other words, the communications commanders have been assigned a mission, but the resources to execute that mission have been centralized well above his level."[14]

As a result of problems such as those outlined in the communications community, one of two things must happen. Either the requisite resources must be returned to the appropriate level/organization, as was the case with the removal of maintenance organizations from operations groups, or the mission of the base-level communications organizations must be changed. In either case, the fact remains, mission is a key consideration when attempting to identify the appropriate level of centralization/decentralization in organizational structures.

Decentralize to the Lowest Level Possible

The second key principle requiring consideration, with regards to determining the appropriate level of centralization/decentralization, centers on the concepts of unity of command and unity of effort. Simply stated, the second principle dictates that decentralization should be

pushed to the lowest level of command authority possible while still enabling unity of effort and unity of command.

Prior to engaging in discussion in the concepts of centralization and decentralization, it is important to first outline the concepts of unity of effort and unity of command. From a unity of effort perspective, the Department of Defense's Joint Publication 1 defines the concept in that it "requires coordination and cooperation among all forces toward a commonly recognized objective, although they are not necessarily part of the command structure."[15] From an organizational perspective, the last part is critical for two reasons. First, it allows for flexibility in that functions that may align for only exigent circumstances do not necessarily require organizational change. Put another way, two functions may come together and operate in close coordination day-to-day, but not necessarily share enough commonality from an organization, training and equipment perspective. In these cases, such as the previous maintenance example, placing the functions in the same organization may not, necessarily, be a requirement.

With regards to unity of command, most would attribute the origin of this principle to the Prussian strategist Carl von Clausewitz. More contemporary strategists would perhaps point to the principles of war as outlined in Joint Publication 3-0, *Joint Operations*. Either case could certainly be argued, but at the risk of invoking religion, the fact remains that the concept of unity of command actually has a biblical origin. Specifically, "No servant can serve two masters. He will either hate one and love the other, or be devoted to one and despite the other."[16] In military terms, the aforementioned Joint Publication defines unity of command as the following: "all forces operate under a single commander with the requisite authority to direct all forces employed in pursuit of a common purpose."[17] To further illustrate the importance of this concept, US Army Field Manual (FM) 3-0, *Operations*, states, "Developing the full combat

power of a force requires unity of command."[18] Admittedly, not every organization at the base level is dedicated to providing combat power. In cases such as those represented by the base's non-combat support functions (e.g. personnel, services, finance, etc.), the phrase full combat power should be replaced by maximum effectiveness.

From a lessons learned perspective, General Creech submits an important example of decentralizing to the lowest level while still maintaining the concepts of unity of effort and unity of command. As previously discussed, during his command tenure at TAC, he pushed for the concept of maintenance teaming. The previous chapter mentioned the underlying premise to this concept. For the purpose of the current argument, General Creech goes on to further explain teaming as follows: "one flight line organization was broken into three identical 'squadron' teams. Each was responsible for its own twenty-four aircraft."[19] The key point to note is that General Creech's approach modified how functions were combined into teams which were assigned to specific fighter squadrons for the purpose of executing the task(s) at hand, but the Airmen themselves were not reorganized out of their parent maintenance units. In short, General Creech's teaming initiative facilitated unity of effort while maintaining unit of command.

From a military perspective, it is not hard to see why, exactly, General Creech took the concept of centralization to task. In his explanation of the need for decentralization in TAC, he admonishes, "Having watched the centralized approach in action throughout the Air Force for more than a decade, I was convinced it was strangling motivation, leadership, and creativity—and thereby wreaking havoc on quality and productivity."[20]

From a civilian perspective, Dr. Henry Mintzberg, Professor of Management Studies at McGill University in Montreal argues for decentralization when possible for a number of reasons. For the purposes of this argument, the most important of these reasons is that

decentralization "allows the organization to respond quickly to local conditions."[21] From a military perspective, the definition of decentralization provided by AFPD 38-1, "Organizations should be designed so lower echelons can achieve objectives without needing continuous control from above"[22] directly supports Dr. Mintzberg's argument. Specifically, "The transmission of information to the center and back takes time, which may be crucial."[23] He goes on to provide an example, "The Bank of America once advertised that, by having its 'man-on-the-spot,' presumably empowered to make decisions, it could provide better service to its clients."[24]

Dr. Mintzberg's recommendations outlined in the preceding paragraph share an additional military context, that of commander's intent. According to JP 3-0, the application of the commander's intent "allows the greatest possible operational and tactical freedom for subordinate leaders"[25] which facilitates "quick and accurate decision making during operations."[26] It is for these reasons decentralization should be achieved at the lowest level of command authority possible while still enabling unity of command and unity of effort.

From a current perspective, the previous communications example again provides the best example to understand the optimal level of decentralization in that the base communications example highlights how the recent centralization effort violated both unity of effort and unity of command. To the point, the ability to maintain connectivity via the various forms of communication (e.g. internet, telephone, etc.) required the involvement of Airmen at both the base and higher headquarters level. The main argument for this move was that technology had developed such that controlling a base's communications infrastructure could be done remotely and therefore more efficiently.[27] If this were truly the case, the higher headquarters would not need the base personnel to assist with the process thereby maintaining unity of effort and

command. This is obviously not the case since base involvement is still very much a necessity as evidenced by the fact that base communications units still exist.

Unfortunately, the preceding example is not the first time the Air Force attempted to reorganize because of technology. As Lt Col Gary D. Sheets points out in his 1978 Air War College thesis, "A History of Wing-Base Organization and Considerations for Change," "The unstated reasons for reorganizing lay within the realms of technology and standardization."[28] Colonel Sheets goes on to reference the first volume of the 1 January to 30 June 1961 History of Tactical Air Command and states, "During the 1950s, advancements in computers and associated equipment allowed greater centralization of control for functional areas."[29] Had the preceding statement been made without an included date, many, if not all, would assume the statement was made more recently than six decades ago. While the similarities in reasoning are interesting, that is not the most important point. The critical aspect is more the fact that a key element of an unsuccessful reorganization surfaced so many years later in yet another failed attempt at centralization. Admittedly, not everyone has a fascination for organizational structure and, more importantly, its application to the US Air Force. It is for this reason understanding the mission and decentralizing organizations to the lowest level of command possible, while still enabling unity of effort and unity of command, are so important. This leads us to our final key principle, achieving the optimal balance between efficiency and effectiveness.

Efficiency vs. Effectiveness

The final and perhaps most important concepts when determining the proper level of centralization and decentralization are those of efficiency and effectiveness. Either efficiency or effectiveness, or sometimes both, are mentioned in one form or fashion throughout the myriad of Air Force organizational reports and studies researched for this undertaking.[30] Similarly, the

words “efficient” and “effective” are ubiquitous in the associated civilian literature. The pervasive nature of these two words proves quite intuitive as, in the final analysis, organizations exist to be as effective as possible while stewarding available manpower as efficiently as possible.

Prior to embarking on the actual discussion of efficiency and effectiveness, it is first important to define the terms. According to the Merriam-Webster Dictionary, effective is defined as, “producing a decided, decisive or desired effect.”[31] Similarly, Merriam-Webster defines efficient as “productive of desired effects; *especially*: productive without waste.”[32] Placing these definitions in a proper context for this discussion, the definition of effective becomes *how successfully an organization achieves its assigned mission* while efficient is defined as *the balance of available resources against effectiveness.*

Historically speaking, Colonel Sheets submits the reason the Air Force first began the evolution from the wing-base structure of the late 1940s and early 1950s was the result of the “quest for a more effective wing-base structure.”[33] This initial effort was followed by organizational evolution throughout the 1950s because “manpower shortages created by budget cuts forced HQ USAF to seek more effective organizational forms.”[34] The evolution continued through to 1978, the point at which Colonel Sheets wrote his thesis, and beyond. In fact, the major change between the tri-deputy construct of Colonel Sheets’ time and the construct of today is that the former deputy chiefs of operations and maintenance are now the operations and maintenance group commanders. In short, they enjoy the same command authority as the combat support group commander, the only commander under the previous system. They achieved this status once the command authority to operate these organizations was decentralized from the wing commander to the respective group commanders.

From the efficiency perspective, the aforementioned decentralization of certain tasks and responsibilities frees up the wing commander to focus his attention on broader wing issues. Effectiveness, on the other hand, may be open for debate. The fact, however, that the current group commander structure has remained the organizational structure for more than 20 years speaks volumes to its effectiveness, especially in light of the fact that not a single previous organizational structure lasted more than 10 years and most less than that. Stated another way, for 44 years the Air Force evolved through various organizations in search of increasing effectiveness, and to a lesser extent increasing efficiency. Once these guiding objectives were attained, the service may have made subordinate adjustments to the overall concept, but the fundamental concept itself remained.

Success in the civilian world is all about efficiency and effectiveness. Those corporations or companies unable to achieve these principles, more often than not, find themselves out of business if they can't execute corrective measures quickly enough. In the book Organizations: Structures, Processes, Behaviors, James Gibson, et. al. defines effectiveness as "the extent to which an organization achieves its objectives within the constraints of limited resources."[35] Beyond the basic importance, Gibson's definition contains a point critical to this discussion. Given the definition of efficiency in the first paragraph, Gibson provides the perfect bridge between efficiency and effectiveness. In effect, this solidifies the concept that effectiveness is resource based and therefore inextricably linked to efficiency. Having established the link between the two, the conversation can move forward to consideration of examples of centralization versus decentralization in the context of efficiency *and* effectiveness.

One of the most compelling arguments with regards to efficiency and effectiveness again come from General Creech. This time, however, it is not a military example, but rather the

startling tale he tells of Toyota's ability to turn around a vehicle manufacturing plant. Time and space preclude the opportunity to tell the entire story. In short, Toyota was able to turn the vehicle production plant in Fremont California into a successful manufacturing facility. They executed this daunting task in the aftermath of a failed effort by General Motors to make the plant successful. The main reason for Toyota's success, according to General Creech, was their approach (decentralized, leadership, teams).[36] Conversely, GM's failure was attributed to their approach (centralized, managership, functions).[37] In the General's own words, "Toyota's approach was radically different from that of GM, and it has resulted in far better quality and much higher productivity."[38] In addition to the preceding case, in his book Designing Organizations, Jay Galbraith also sheds light into why decentralization is so inextricably tied to efficiency and effectiveness, "also contributing to effectiveness is the amount of commitment among organization members to implement design."[39] Combining this to a key reason for General Creech's zeal for decentralization, "if there's one piece to the puzzle of why centralization fails so badly and decentralization works so well, it's the issue of empowerment"[40] sheds light on a major factor behind the increased efficiency and effectiveness of decentralization. In a nut shell, it empowers those tasked with executing the mission. For all the reasons mentioned above, the key to achieving centralization/decentralization success centers on the fact that the lower the level to which an organization can be decentralized, the better.

So what does the above mean for initiatives of today? Perhaps the best way to answer that question is with another question. How many times have the proponents of a new organization, program, etc. from across the Air Force briefed their chain of command using a comparison of the proposed program, system or organization against the current program, system or organization? In those briefings how many times have contrasts been made between the two

programs with the proposed solution almost completely positive with few (if any) negatives and the "legacy" solution almost completely negative with few (if any) positives? The reader is left to envision the finance officer who extolled the increased "efficiency" and "effectiveness" of centralizing finance functions at Ellsworth AFB, a re-organization so effective and efficient it was reversed only a few short years after it was enacted. Similarly, how long will it be before wing commanders are no longer satisfied with the inability of their communications squadrons to provide the level of communications support they need to execute their assigned mission, especially in an era of evolving technology? It is these questions that mandate careful, objective consideration before decentralization is discounted as the preferred option.

Conclusion

The fact remains that in the years to come, the Air Force will certainly face challenges with regards to maximizing resources. Additionally, technological advances will necessitate a relook at how the personnel are organized. The degree to which the Service applies the three key principles outlined in this paper has the potential to impact directly the success of future organizational efforts. Likewise, successful application of the key principles can also minimize the number of reorganizations the Air Force endures.

Within the last few years, the Air Force has attempted a number of reorganizations, many of which struggled with the centralization/decentralization dilemma. This is understandable given the natural tension between centralization and decentralization. On the one hand, as General Creech points out, Americans have a "fixation on centralization and consolidation."[41] On the other hand, efforts to give commanders as much flexibility as possible pushed the concept of decentralization past the point of effective manpower employment and/or resource utilization. As the historical analysis, studies of related civilian literature and more current examples

presented in the pages above provide, keys to achieving the proper balance of centralization/decentralization certainly exist. Moreover, by applying these key principles (e.g. The mission is pre-eminent; decentralize to the lowest level possible without sacrificing unity of effort and unity of command; seek the proper balance between efficiency and effectiveness) the Air Force can anticipate the problems associated with attempting to decentralize or centralize at the wrong level. Applied effectively, the principles can assist in avoiding reorganizations doomed to failure such as the move to centralize finance functions at Ellsworth, a move the service reversed a few short years later.

In the final analysis savings in personnel and resources resulting from reorganizations that fail to consider the key principles outlined in this thesis can result in little more than an increase in workload on an already overburdened workforce. Arguably, the greatest asset to successful mission execution is human resources. As a result, the organization of these critical resources has been and will continue to be vital. Nowhere is this truer than in the profession of arms, where inefficiency is the lowest cost of failure.

NOTES

[1]Air Force Historical Research Agency, "Fact Sheet: Air Force Global Strike Command," http://www.afhra.af.mil/factsheets/factsheet.asp?id=15047.
[2]Air Force Publication Document (AFPD) 38-1, *Manpower and Organization*, 16 March 2011, 2.
[3]Ibid, 2.
[4]Edward J. Conlon, Richard L. Daft, Jeffrey S. Austin and Lawrence O. Short, "A Field Study of Air Force Organizations," Research Report no. LMDC-TR-84-4 (Maxwell AFB, AL: Air University Press, May 1984), Abstract.
[5]Ibid, 71.
[6]In Step with Maj Gen Robert H. McMahon," *Exceptional Release Magazine*, Summer 2008, 15,
[7]Air Force Instruction (AFI) 38-101, *Manpower and* Organization, 29 June 1994, paragraph 3.3.4.1.
[8]Ibid, paragraph 3.3.3.1.
[9]Henry Mintzberg, *Structure in Fives: Designing Effective Organizations*, (Englewood Cliffs, NJ: Prentice-Hall, 1993) 2-3.
[10]Jay M. Shafritz and J. Steven Ott, *Classics of Organization Theory*. (Belmont, CA: Wadsworth, Inc, 1992), 1.
[11]Bill Creech, *The Five Pillars of TQM: How to Make Total Quality Management Work for You*, (New York, NY: Truman Talley Books/Plume, 1994), 129.
[12]Ibid, 133.
[13]Ibid, 129.
[14]Interview with Communications Squadron Commander, 10 January 2012. (Unattributed interview)
[15]Joint Publication (JP) 1, *Doctrine for the Armed Forces of the United* States, 02 May 2007, XV.
[16]*The Holy Bible: The New American Bible* (Wichita, KS: Fireside Bible Publishers, 1996), Luke, Chapter 16, verse 13, 1120.
[17]JP 3-0, *Operations*, 11 August 2011, A-2.
[18]Army Field Manual (FM) 3-0, *Operations*, June 2001, paragraph 4-44.
[19]Creech, 129.
[20]Ibid, 116.
[21]Mintzberg, 97.
[22]AFPD 38-1, 1.
[23]Mintzberg, *97*.
[24]Ibid, 97.
[25]JP 3-0, III-25.
[26]Ibid, III-25.
[27]Interview with Communications Squadron Commander, 10 January 2012. (Unattributed interview)
[28]Gary D. Sheets, "A Field Study of Air Force Organizations," Research Report no. 78-474 (Maxwell AFB, AL: Air University Press, 1978), 78.
[29]Ibid, 68.
[30]Examples include: *A Field Study of Air Force Organization Structure, Alternative Maintenance Structures for Operational Wings* and *A History of Wing-Base Organization and Considerations for Change*.

[31]*Merriam-Webster Dictionary Online*, s.v. "Effective," http://www.merriam-webster.com/dictionary/effective?show=0&t=1329182106 (accessed 10 January 2012).
[32]Merriam-Webster Dictionary Online, s.v. "Efficient," http://www.merriam-webster.com/dictionary/efficient (accessed 10 January 2012).
[33]Sheets, 36.
[34]Sheets, 55.
[35]James L. Gibson, John M. Ivancevich and James H. Donnelly, Jr., *Organizations: Structure, Processes, Behavior* (Dallas, TX: Business Publications, Inc, 1973), 20.
[36]Creech, 57.
[37]Ibid, 57.
[38]Ibid, 63.
[39]Jay R. Galbraith, *Designing Organizations* (San Francisco, CA: Jossey-Bass, 2002), 171.
[40]Creech, 17.
[41]Creech, 9.

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